

**AMENDMENTS TO THE CLAIMS**

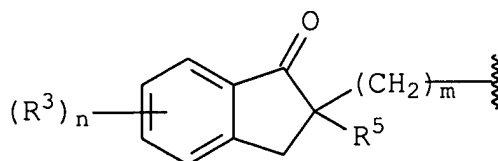
This listing of claims will replace all prior versions, and listings, of claims in the present application:

**Listing of Claims:**

1. (Previously Presented) A compound represented by the formula:



a pharmacologically acceptable salt thereof or hydrates thereof, wherein in the formula, R<sup>1</sup> represents the formula:



wherein:

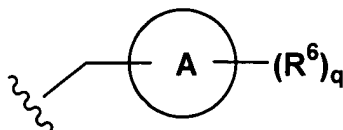
(R<sup>3</sup>)s are the same as or different from each other and each represents hydrogen atom, a halogen atom, hydroxyl group, a C<sub>1-6</sub> alkyl group, a C<sub>3-8</sub> cycloalkyl group, a C<sub>1-6</sub> alkoxy group, a C<sub>1-6</sub> alkoxyalkoxy group, a halogeno C<sub>1-6</sub> alkyl group, a hydroxy C<sub>1-6</sub> alkyl group, a cyano C<sub>1-6</sub> alkyl group, an amino C<sub>1-6</sub> alkyl group, a halogeno C<sub>1-6</sub> alkoxy group, a hydroxy C<sub>1-6</sub> alkoxy group, a cyano C<sub>1-6</sub> alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally substituted carbamoyl group, mercapto group or a C<sub>1-6</sub> thioalkoxy group;

$R^5$  represents a halogen atom (provided that fluorine is excluded), hydroxy group, a  $C_{1-6}$  alkyl group, a  $C_{1-6}$  alkoxy group, cyano group, a halogeno  $C_{1-6}$  alkyl group, a cyano  $C_{1-6}$  alkyl group, an amino  $C_{1-6}$  alkyl group, nitro group, an azido group, an optionally substituted amino group, an optionally substituted carbamoyl group, an optionally substituted carboxyl group, mercapto group or a  $C_{1-6}$  thioalkoxy group;

m is 0 or an integer from 1 to 6; and

n is an integer from 1 to 4; and

$R^2$  represents a  $C_{3-8}$  cycloalkylmethyl, a 2,2-(alkylenedioxy)ethyl or a group represented by the formula:



wherein:

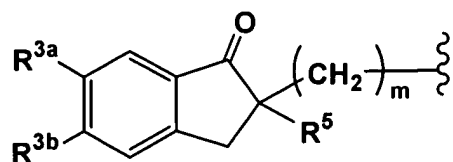
the ring A represents a benzene ring or a heterocyclic ring;

$(R^6)$ s are the same as or different from each other and each represents hydrogen, a halogen atom, hydroxyl group, nitrile group, a  $C_{1-6}$  alkyl group, a  $C_{3-8}$  cycloalkyl group, a  $C_{1-6}$  alkoxy group, a  $C_{1-6}$  alkoxyalkoxy group, an aryloxy group, an aralkyloxy group, a halogeno  $C_{1-6}$  alkyl group, a hydroxy  $C_{1-6}$  alkyl group, a cyano  $C_{1-6}$  alkyl group, a halogeno  $C_{1-6}$  alkoxy group, a hydroxy  $C_{1-6}$  alkoxy group, a cyano  $C_{1-6}$  alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally substituted amide group, mercapto group or a  $C_{1-6}$  thioalkoxy group, and

two of the  $R^6$  may together form an aliphatic ring, an aromatic ring, a heterocyclic ring or an alkylenedioxy ring; and

q is 0 or an integer from 1 to 5.

2. **(Previously Presented)** The compound according to Claim 1, a pharmacologically acceptable salt thereof or hydrates thereof, wherein  $R^1$  is represented by the formula:



in which  $R^{3a}$  and  $R^{3b}$  are the same as or different from each other and each represents a  $C_{1-6}$  alkoxy group;

$R^5$  represents a halogen atom (provided that fluorine is excluded), hydroxy group, a  $C_{1-6}$  alkyl group, a  $C_{1-6}$  alkoxy group, cyano group, a halogeno  $C_{1-6}$  alkyl group, a cyano  $C_{1-6}$  alkyl group, an amino  $C_{1-6}$  alkyl group, nitro group, an azido group, an optionally substituted amino group, an optionally substituted carbamoyl group, an optionally substituted carboxyl group, mercapto group or a  $C_{1-6}$  thioalkoxy group; and

m is 0 or an integer from 1 to 6.

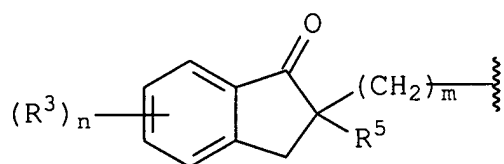
3. **(Original)** The compound according to Claim 2, a pharmacologically acceptable salt thereof or hydrates thereof, wherein  $R^{3a}$  and  $R^{3b}$  are methoxy groups.

4. (Previously Presented) A compound represented by the formula:



a pharmacologically acceptable salt thereof or hydrates thereof,

wherein in the formula,  $\text{R}^1$  represents the formula:



wherein:

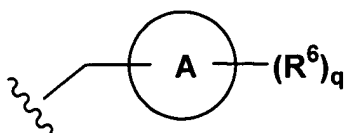
$(\text{R}^3)$ s are the same as or different from each other and each represents hydrogen atom, a halogen atom, hydroxyl group, a  $\text{C}_{1-6}$  alkyl group, a  $\text{C}_{3-8}$  cycloalkyl group, a  $\text{C}_{1-6}$  alkoxy group, a  $\text{C}_{1-6}$  alkoxyalkoxy group, a halogeno  $\text{C}_{1-6}$  alkyl group, a hydroxy  $\text{C}_{1-6}$  alkyl group, a cyano  $\text{C}_{1-6}$  alkyl group, an amino  $\text{C}_{1-6}$  alkyl group, a halogeno  $\text{C}_{1-6}$  alkoxy group, a hydroxy  $\text{C}_{1-6}$  alkoxy group, a cyano  $\text{C}_{1-6}$  alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally substituted carbamoyl group, mercapto group or a  $\text{C}_{1-6}$  thioalkoxy group;

$\text{R}^5$  is chlorine or bromine;

$m$  is 0 or an integer from 1 to 6; and

$n$  is an integer from 1 to 4; and

$\text{R}^2$  represents a  $\text{C}_{3-8}$  cycloalkylmethyl, a 2,2-(alkylenedioxy)ethyl or a group represented by the formula:



wherein:

the ring A represents a benzene ring or a heterocyclic ring;

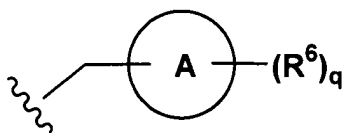
(R<sup>6</sup>)s are the same as or different from each other and each represents hydrogen, a halogen atom, hydroxyl group, nitrile group, a C<sub>1-6</sub> alkyl group, a C<sub>3-8</sub> cycloalkyl group, a C<sub>1-6</sub> alkoxy group, a C<sub>1-6</sub> alkoxyalkoxy group, an aryloxy group, an aralkyloxy group, a halogeno C<sub>1-6</sub> alkyl group, a hydroxy C<sub>1-6</sub> alkyl group, a cyano C<sub>1-6</sub> alkyl group, a halogeno C<sub>1-6</sub> alkoxy group, a hydroxy C<sub>1-6</sub> alkoxy group, a cyano C<sub>1-6</sub> alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally substituted amide group, mercapto group or a C<sub>1-6</sub> thioalkoxy group, and

two of the R<sup>6</sup> may together form an aliphatic ring, an aromatic ring, a heterocyclic ring or an alkylenedioxy ring; and

q is 0 or an integer from 1 to 5.

5. **(Original)** The compound according to Claim 1, a pharmacologically acceptable salt thereof or hydrates thereof, wherein m is 1.

6. **(Previously Presented)** The compound according to Claim 1, a pharmacologically acceptable salt thereof or hydrates thereof, wherein R<sup>2</sup> is a group represented by the formula:



wherein:

the ring A represents a benzene ring or a heterocyclic ring;

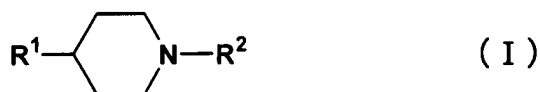
$(R^6)$ s are the same as or different from each other and each represents hydrogen, a halogen atom, hydroxyl group, nitrile group, a  $C_{1-6}$  alkyl group, a  $C_{3-8}$  cycloalkyl group, a  $C_{1-6}$  alkoxy group, a  $C_{1-6}$  alkoxyalkoxy group, an aryloxy group, an aralkyloxy group, a halogeno  $C_{1-6}$  alkyl group, a hydroxy  $C_{1-6}$  alkyl group, a cyano  $C_{1-6}$  alkyl group, a halogeno  $C_{1-6}$  alkoxy group, a hydroxy  $C_{1-6}$  alkoxy group, a cyano  $C_{1-6}$  alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally substituted amide group, mercapto group or a  $C_{1-6}$  thioalkoxy group, and

two of the  $R^6$  may together form an aliphatic ring, an aromatic ring, a heterocyclic ring or an alkylenedioxy ring; and

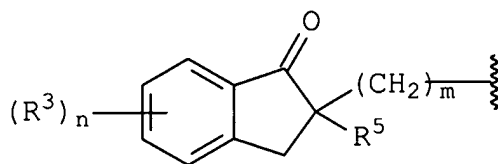
q is 0 or an integer from 1 to 5.

7. **(Original)** The compound according to Claim 6, a pharmacologically acceptable salt thereof or hydrates thereof, wherein the ring A is a benzene ring.

8. **(Previously Presented)** A compound represented by the formula:



a pharmacologically acceptable salt thereof or hydrates thereof, wherein in the formula,  $R^1$  represents the formula:



wherein:

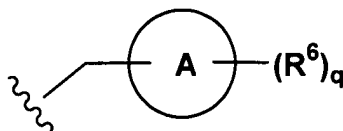
$(R^3)_s$  are the same as or different from each other and each represents hydrogen atom, a halogen atom, hydroxyl group, a  $C_{1-6}$  alkyl group, a  $C_{3-8}$  cycloalkyl group, a  $C_{1-6}$  alkoxy group, a  $C_{1-6}$  alkoxyalkoxy group, a halogeno  $C_{1-6}$  alkyl group, a hydroxy  $C_{1-6}$  alkyl group, a cyano  $C_{1-6}$  alkyl group, an amino  $C_{1-6}$  alkyl group, a halogeno  $C_{1-6}$  alkoxy group, a hydroxy  $C_{1-6}$  alkoxy group, a cyano  $C_{1-6}$  alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally substituted carbamoyl group, mercapto group or a  $C_{1-6}$  thioalkoxy group;

$R^5$  represents a halogen atom (provided that fluorine is excluded), hydroxy group, a  $C_{1-6}$  alkyl group, a  $C_{1-6}$  alkoxy group, cyano group, a halogeno  $C_{1-6}$  alkyl group, a hydroxy  $C_{1-6}$  alkyl group, a cyano  $C_{1-6}$  alkyl group, an amino  $C_{1-6}$  alkyl group, nitro group, an azido group, an optionally substituted amino group, an optionally substituted carbamoyl group, an optionally substituted carboxyl group, mercapto group or a  $C_{1-6}$  thioalkoxy group;

$m$  is 0 or an integer from 1 to 6; and

$n$  is an integer from 1 to 4; and

$R^2$  represents a  $C_{3-8}$  cycloalkylmethyl, a 2,2-(alkylenedioxy)ethyl or a group represented by the formula:



wherein the ring A is a pyridine ring;

$(R^6)$ s are the same as or different from each other and each represents hydrogen, a halogen atom, hydroxyl group, nitrile group, a  $C_{1-6}$  alkyl group, a  $C_{3-8}$  cycloalkyl group, a  $C_{1-6}$  alkoxy group, a  $C_{1-6}$  alkoxyalkoxy group, an aryloxy group, an aralkyloxy group, a halogeno  $C_{1-6}$  alkyl group, a hydroxy  $C_{1-6}$  alkyl group, a cyano  $C_{1-6}$  alkyl group, a halogeno  $C_{1-6}$  alkoxy group, a hydroxy  $C_{1-6}$  alkoxy group, a cyano  $C_{1-6}$  alkoxy group, a lower acyl group, nitro group, an optionally substituted amino group, an optionally substituted amide group, mercapto group or a  $C_{1-6}$  thioalkoxy group, and two of the  $R^6$  may together form an aliphatic ring, an aromatic ring, a heterocyclic ring or an alkylenedioxy ring; and

q is 0 or an integer from 1 to 5.

9. **(Original)** The compound according to Claim 6, a pharmacologically acceptable salt thereof or hydrates thereof, wherein q is an integer of 1 or 2.

10. **(Previously Presented)** The compound according to Claim 1, a pharmacologically acceptable salt thereof or hydrates thereof, which is selected from the group consisting of:



1-benzyl-4-[(5,6-dimethoxy-2-chloro-1-indanon)-1-yl]methylpiperidine,  
1-benzyl-4-[(5,6-dimethoxy-2-bromo-1-indanon)-2-yl]methylpiperidine,  
1-benzyl-4-[(5,6-dimethoxy-2-iodo-1-indanon)-2-yl]methylpiperidine,  
1-benzyl-4-[(5,6-dimethoxy-2-hydroxy-1-indanon)-2-yl]methylpiperidine,  
1-benzyl-4-[(5,6-dimethoxy-2-methyl-1-indanon)-2-yl]methylpiperidine,  
1-benzyl-4-[(5,6-dimethoxy-2-ethyl-1-indanon)-2-yl]methylpiperidine,  
1-benzyl-4-[(5,6-dimethoxy-2-azido-1-indanon)-2-yl]methylpiperidine,  
1-benzyl-4-[(5,6-dimethoxy-2-amino-1-indanon)-2-yl]methylpiperidine,  
1-benzyl-4-[(5,6-dimethoxy-2-methylamino-1-indanon)-2-yl]methylpiperidine,  
1-benzyl-4-[(5,6-dimethoxy-2-dimethylamino-1-indanon)-2-yl]methylpiperidine, and  
1-benzyl-4-[(5,6-dimethoxy-2-acetamide-1-indanon)-2-yl]methylpiperidine.

11-21. (Canceled)

22. (Previously Presented) A method of treating Alzheimer-type senile dementia, said method comprising administering a pharmacologically effective amount of the compound according to Claim 1, a pharmacologically acceptable salt thereof or hydrates thereof to a patient in need thereof.

23. (Previously Presented) A pharmaceutical composition comprising the compound according to Claim 1, a pharmacologically acceptable salt thereof or hydrates thereof; and a pharmacologically acceptable carrier.

24. (Previously Presented) The compound according to Claim 1, the pharmacologically acceptable salt thereof or hydrates thereof, wherein R<sup>5</sup> in the formula represents a halogen atom (provided that fluorine is excluded), hydroxy group, a C<sub>1-6</sub> alkyl group, a C<sub>1-6</sub> alkoxy group, cyano group, a halogeno C<sub>1-6</sub> alkyl group, a cyano C<sub>1-6</sub> alkyl group, an amino C<sub>1-6</sub> alkyl group, nitro group, an azido group, an optionally substituted amino group, an optionally substituted carbamoyl group, mercapto group or a C<sub>1-6</sub> thioalkoxy group.

25. (New) A method of treating cerebrovascular dementia, said method comprising administering a pharmacologically effective amount of the compound according to Claim 1, a pharmacologically acceptable salt thereof or hydrates thereof to a patient in need thereof.